OCTOBER 1989

Field Naturalists Club of Ballarat Incorporated.

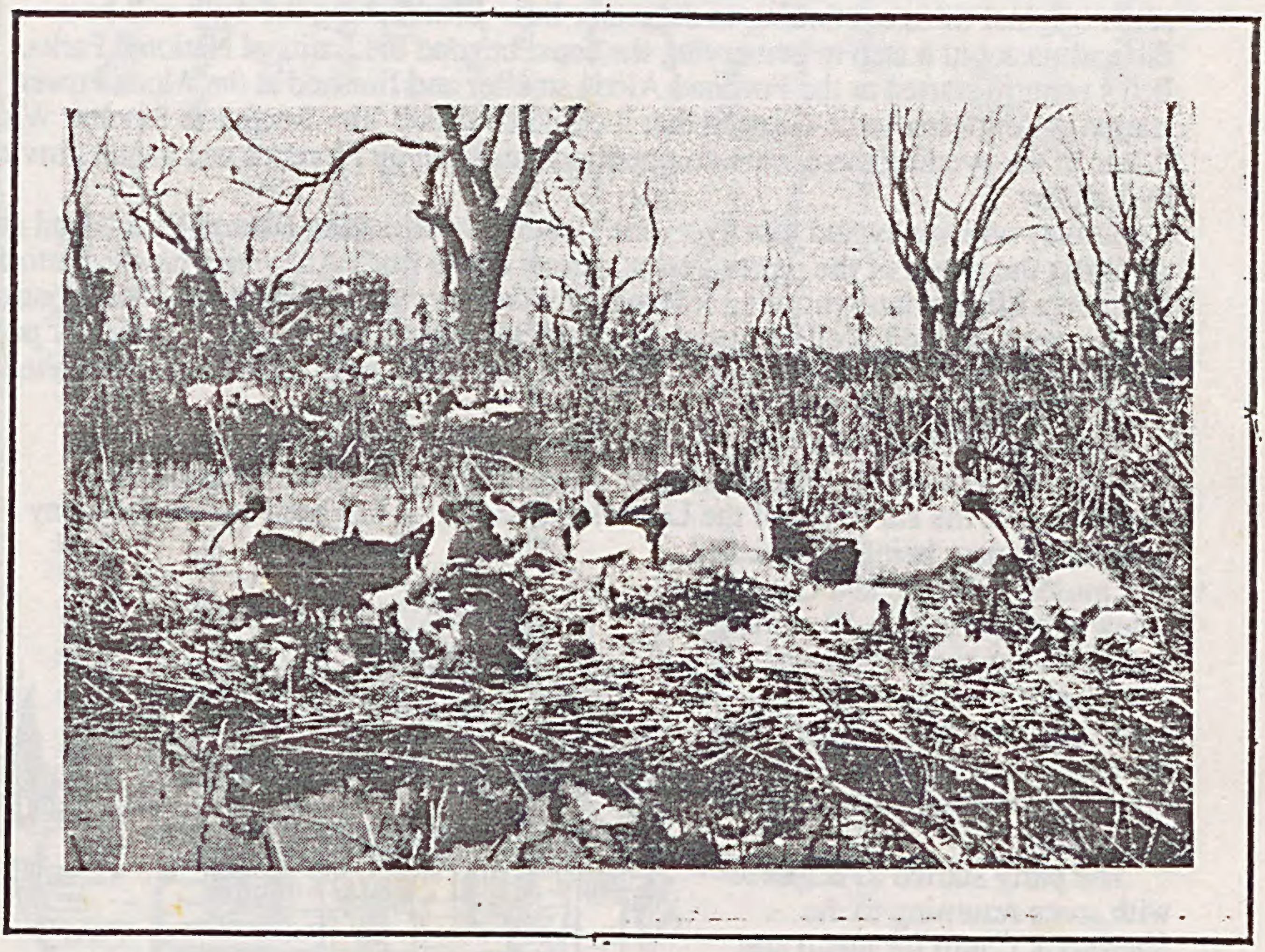
EXCURSION - NEWS SHEET

Meeting : October 6 Mr G. Binns: Birds and Wetland

Meeting : November 3 Stella Bedggood Memorial
Lecture Venue St Cuthberts Hall Elliot St.

Excursion : October 8 1 Heathlands: J. Pickford
October 21 - 23 W.V.F.N.C.A. Campout.

Excursion : November 4-5 Campout or Day : J. Gregurke



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Meetings as specified are held at the School of Mines and Industries, Lydiard Street Sth., Art Building, commencing at 7.30 p.m. EXCURSIONS, AS SPECIFIED, COMMENCE FROM CROCKERS, cnr. STURT AND ARMSTRONG STS., BALLARAT, at 9.30 a.m. for FULL DAY OUTINGS OR AT 1.30 p.m. for HALF DAY*

Club Campout - 28th to 30th July 1989

What do the Ballarat Field Naturalists do in the middle of winter? Head for one of the bleakest parts of Australia's coast for a weekend. As most people arrived at Sherbrook River Guide Lodge adjacent to the Port Campbell National Park on Friday evening they were greeted by a warm fire set by the advance party and stories of whale sightings by Ken and Marg who had ventured down via Warrnambool. There were three adult and two small whales active in the water. By the end of the evening 18 peoplewere in residence - Avis, Helen and her sister Heather, Kit, Florence, Greg and Genny Binns, Ken and Marg Hammond, the Gregurke and Dalman families.

Saturday was overcast. The morning started with a visit to the National Park Information Centre with a slide presentation about the park. Then it was off for a walk along Rutledge Creek to the mouth with a view of the "Baker's Oven". In the afternoon we ventured down a slippery track to Two Mile Bay. Mostly the rain was avoided but when a walk in the forest section of the National Park was suggested at the end of the day most people voted with their feet (on the accelerator) and headed back to the fire.

On Saturday evening slides were shown and an address given by Bill O'Shea, a ranger at the National Park. Bill had walked from Portland to Anglesea over a period of five weeks researching the possibility of extending the "Great South West Walk". There is difficult terrain to cover and a variety of land titles to traverse en route with some original titles continuing to the water line. Establishing the walk will be a difficult task but a step in preserving the coast beyond the limits of National Parks. Bill's venture started at the Portland Alcoa smelter and finished at the Alcoa Power station at Anglesea so he quipped that it could be called "the Smelter to Smelter Walk". Later in the evening there were competitions initiated by Florence and a quiz provided by Lindsay.

Sunday was sunny and saw everyone standing overlooking Mutton Bird Island and picturing the plight of the passengers and crew of the Loch Ard which crashed into the coast on a bleak winter morning leaving only two survivors. Out to sea three albatross species were sighted, Yellow nosed, Shy and Black Browed, then back at the car park a cheeky Singing honeyeater clung to Florence's car radio aerial while we approached to within a few feet.

At eleven we were met again by Bill O'Shea and given a personal tour of the Glenample Homestead. The homestead was the first built in the area and the destination of the survivors of the Loch Ard disaster. It has been unused for many years but is now being refurbished as a museum. Since last Christmas a new access road has been made and considerable renovation completed inside the building. We were fortunate to be able to view the progress of work as the building is not normally open to the public.

The party started to disperse with some returning to the Sherbrook Camp for lunch and others departing for home. The overall vote was "yes", a good way to spend a winter weekend.

Reports

P. Murphy	Many Orchids out Helmet, Gnat and Nodding Greenhoods.
J. Gregurke	A mature Hawk - Brown Goshawk or Collared Sparrow Hawk with Turtle Dove
F. Harrap	also Black Shouldered Kite in district.
F, Harrap	Female Red Capped Robin at Mosquito Flats. Noisy Miners at Tarnagulla and Yellow Tufted Honey eater. Coots, Swamp Hen and Moorhens at Laane Courie.

Documents to hand ...

* A series of papers outlining the State Conservation and Environment Budget 1989-90.
* Draft Firewood Plan - Geelong Region of C.F.L. (includes Wombat and Upper Loddon State Forests).
* State Plantations Impact Study - Issues and Options,, and Consultants Report. (University of Melbourne).

CATALOGUES AVAILABLE ...

The Club receives numerous catalogues of goods available from Conservation bodies. Currently there are to hand:

* Posters from C.F.L. - 14 new posters of National Parks and forests. (Beautiful photographs!)
* Greens Bookshop (CCV) - new books, Spring 1989.
* A.C.F. Conservation Foundation - Summer Catalogue.
* World WildlifeFund - Tshirts, posters etc.
* Lothian Books pub.; "Ferdinand Bauer - The Australian Natural History Drawings". (Book)

"The Forests of the Anglesea River Valley"- by Mary D White.
Mary White has produced and published this volume of 119 pages which contains descriptions of native plants, listed under "Colour of Flowers" and "Shapes of flowers". The 273 entries have been illustrated by Mary in her inimitable style, the sections are colour coded, the whole is printed on glossy paper - in all an attractive and useful little volume.
Congratulation Mary!
We are grateful to Mary for forwarding a copy to the club, with her best wishes.
Available from Mary White, 4 McMillan St. Anglesea. Price $10.

New Zealand Flora and It's Relationship To Australia. Speaker Mr. T. Burger.

Plants in New Zealand and Australia have many common origins as both were part od Gondwana. New Zealand plants, however, are much older than Australia as it separated 200 - 80 milion years ago, and Australia about 50 - 45 million.

We therefore see two origins of plants in New Zealand

1 - Those inherited from Gondwana- 80 plus million years old eg Podocarp, Ryllorendris, Agathis, Nothofagus, Metrosideris etc.

2 - Those developed after isolation eg Astelia, Fuschia, Pseudopanax etc.

New Zealand has approximately 1800 species of indiginenousnative flowering plants with 84% of these being endemic, whilst Australia has up to 25000 species of plants with 80% endemic. Of these only 50 genera and 200 species are shared. [illegible] of these the bulk of one family occurs in [illegible] country eg Clianthus and Swainsonia are essentially Australian, but Hebe, Celausia etc a are [illegible] in New Zealand. New Zealand also shares 25 genera with 60 species with South America, but some of these occur in S.E Australia, Tasmania and some Pacific Islands eg Sophora, Aristotelia, Griselineas, and Nothofagus to name a few.

The reason for this was the position of New Zealand in Gondwana. Australia was more on the Western and Northen side of Antarctica sheltered by India and Africa, that is the "rain shadow".

New Zealand on the Eastern side always faced the Pacific, giving it a more even, cooler and wetter climate but with a soil considered to be sub tropical. These are the reasons for a lack of Ptotaceae and Myrteceae families. Due to this position they have had long periods of 6 months light and 6 months twilight.

Another effect New Zealand has always been low lying and subject to innundation from the sea.

Mountains began forming only after the last 5 million years and reached their peak about 2Million years ago. The orientation of the mountains were four periods of glaciation, alternating cold and dry to warm and wet.

The soils are comparatively new mostly volcanic especially in the North Island.

New Zealands stocks of plants may also have been supplemented by Trans Tasmanian igrations by wind or water.

The Antiquity and Pedigree of New Zealand Forests.

1 - Conifer hardwood forests - Podocarp, Kauri, Libocedius. Halocarpus, Phyllocladus, Lagacostrobus Dacridium, Broadleaf - other features are luxurient and dense understory of thick shrubs and small trees, Ferns and Mosses, Lichen, Lianas and Epiphytes.

2 - Beech forests - four types of Nothofagus.

Features are open forests with less undergrowth, with olive green and blue green colours of foliage predominant.

New Zealand has more Podocarp species with anci ancient lineages than similar forests anywhere else. They would be about the oldest in the world, also they have had very little modification, eg Rimu, Dacridium impression is about 37 Million years old and the fossil pollen grains of its ancient ancestors are almost identical with todays living trees. Others go back as far as 235 mill milliom years with similar pollen identification.

In Australia Eucalypts ancestors first appeared 34 million years ago, with Nothofagus 135 million

N. Menziesii has the same pollen as fossils 65 - 100 million years old.

Treeferns, Cythea, are probably 200 million years old.

The present day New Zealand flora is very similar to fossil records of N.S.W.

Metrsiderous once widespread in Australia, and with great diversity, has now two relict in Queensland. Other ancient flowering plants Pseudowintera and Asearenaboth endemic to New Zealand and in Australia the only representative is Tasmania's Mountain Peppers.

Distinctive Characteristics of New Zealand Flora

Mottled and Marbled leaves. Zig Zag twigs and branches, especially on juvenile plants.

Many drupes and berries.

Juvenile foliage often differs from adult foli Black trunks and branches (Black Beech due to Aphids). Flower colours mostly white and pale mauves etc, this is due to a lack of specialised pollinators,

Pollination is mostly done by flies, then moths and beetles, and then birds.

Bees and insects can often see ultra-violet light but not red light, so human comparison with insect vision of one flower is different. Flies prefer white or pins, yellow and green. New Zea Zealand also, commonly has spots and markings on the inside of flowers, thought to be guiding marks for visiting insects. There is a lack of pollinating birds - the Tui is the most important as it pollinates the Metrosideros etc.

In 1860 the first Silvereyes arrived from Austa Australia.

Beetles have poor eyesight, but good sense of smell, and prefer fragrant flowers which tend to be white or dull coloured. There is a scarecity of Butterflies.

Alpine Plants

Australian and New Zealand alpine plants have more in common with each other than with their other counter parts in the lowlands. These flowers are usually white and 13.5% of them are unisexual.

This is because alpine plants are a very recent addition, about 3 million years old. There are severe evolutionary pressures, but unisexual means half the population can't set seeds which is very innefficient, However many related genera hybridize freely. Flies are the main pollinators.

Footnote

"Matagouri" (Wild Irishman) - Discaria tomatou the thorns of this plant are used by the Maoris as a tatooing needle.

The peoples who have settled in New Zealand ha have had a marked effect on the plant life. Marioris -- Maoris who destroyed some 30 - 35% of forests and the Europeans destroyed a further 40 - 45% of the remaing forest.

L.F.

For your diary .....

October 14	Excursion with Castlemaine F.N.C. (Saturday). Meet 10:30am, Black Duck Hotel Corner, Campbelltown (via Smeaton).
October 16	ACF / Commission for the Future; Seminar on Tourism and its effect on the environment - "What is Sustainable Tourism"? - Brochures available.
October 20-22	Spring W.V.F.N.A. gathering at Adekate Camp, Creswick. Details are available.
October 23	8pm, Room 2 Community Education Centre. ACF Ballarat Chapter Meeting.
October 24	Committee Meeting 8pm, 1 John St. Wendouree.
October 25	Forest Street Primary School Environment Day.
November 3	Stella Bedggood Memorial Lecture. 8pm. This is the evening to which we invite a number of guests. Consequently, additional supper is required and members are requested to remember this when preparing. The venue this year is St Cuthbert's Hall, Crn. Elliot St & Sturt St. , Ballarat. (opp. Ballarat and Clarendon College).
November 4-5	Club weekend campout, Mt Cole area. Overnight camp and/or day trips.

Excursion, October 8th - to Stawell.

We are fortunate in having Mr Jim Pickford, well known Stawell naturalist, as our leader for this outing. The bushland should be quite prolific at the time of our visit.

Arrangements are as follows:

9.00am	Depart Crocker's Corner (note earlier time).
10.30am	Meet - 19 Patrick St. Stawell, near Technical School (main town area). House is on the righthand side - look for 2 white storks in the garden!
2.00pm	Afternoon rendezvous - on Marnoo Rd. north of Stawell; at approximately 6.5km, Bush block on left, top of rise, near brick house in bush block.

Botanical Notes

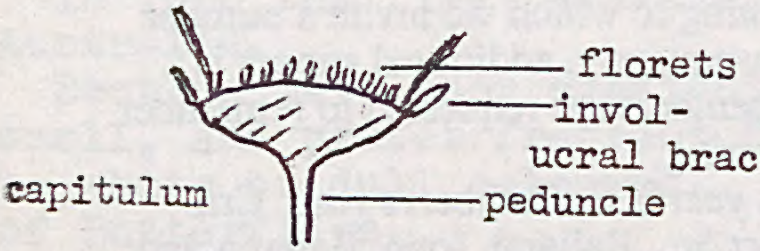
FAMILY ASTERACEAE (COMPOSITAE)

(Daisies, thistles, everlastings, dahlias)

This is the largest Angiosperm) flowering plants which bear seeds in some sort of case) family with about 1,100 genera and 25,000 species. There are 200 genera native to Australia. Plants belonging to at least 33 genera are found in the Ballarat area (C. Beauglehole)

The family is readily recognized because the so-called " flowere " are really a composite of many small flowers, called florets, clustered together to form a capitulum.

The capitulum is surrounded by a series of bracts, which are known collectively as the involucre.



It is a very successful family - adaptable to many different climates, especially arid areas, and there is an efficient mode for the distribution of seeds.

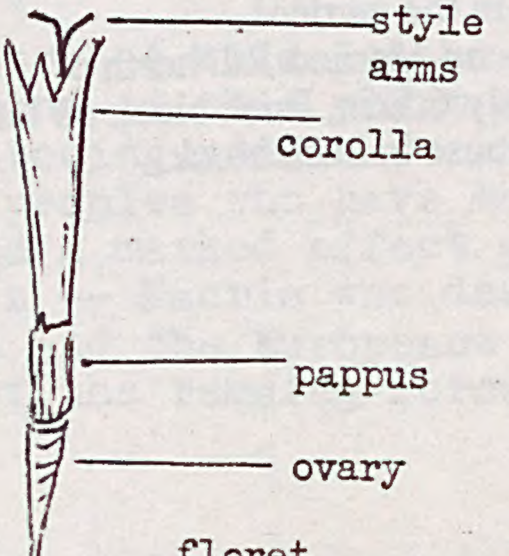
Individual florets

These may be very small. They are regular or zygomorphic, usually bisexual or female.

Calyx, if present, is represented by scales, hairs, bristles or awns and is known as a pappus.

Corolla usually has 5 petals (sometimes 4) and these are united at the base or completely.

Androecium - there are usually 5 stamens, united by their anthers to form a tube around the style. Gynoecium - has two carpels also 2 styles. The ovary is inferior, has one lucule and one basal ovule.



floret

H. H.